

CLAIMS

1. A surgical stapling device comprising:
 - a frame having first and second ends;
 - a body portion defining a stationary handle, the body portion being secured to the first end of the frame;
 - a trigger pivotably secured to the body; and
 - a head portion including an anvil assembly and a cartridge assembly, the anvil assembly being secured to the second end of the frame, the cartridge assembly and the anvil assembly being movable in relation to each other between spaced and approximated positions;
 - wherein the anvil assembly includes an anvil having a plurality of staple forming pockets and a stiffener plate, the anvil being configured to be fastened about the stiffener plate, the stiffener plate providing added strength to the anvil assembly to permit a reduction in size of the head portion.
2. A surgical stapling device according to Claim 1, wherein the stiffener plate and the anvil are formed of stainless steel.
3. A surgical stapling device according to Claim 1, wherein the frame includes right and left frame members, the anvil assembly being secured between the second end of the right and left frame members;
4. A surgical stapling device according to Claim 4, wherein the anvil assembly further includes a spacer plate, the spacer plate being configured to be positioned about the stiffener plate.

5. A surgical stapling device comprising:

a body having a stationary handle portion;

a trigger pivotably fastened to the body;

a head portion including an anvil assembly and a cartridge assembly, the anvil assembly and the cartridge assembly being movable in relation to each other from a spaced position to an approximated position;

an approximation mechanism operatively connected to the head portion, the approximation mechanism being actuatable to move the anvil and cartridge assemblies in relation to each other between the spaced and approximated positions; and

an alignment pin assembly including an alignment pin having a tip, the alignment pin assembly being actuatable to advance the alignment pin from a retracted position to an advanced position in which the alignment pin tip engages the anvil assembly;

wherein the alignment pin assembly is releasably coupled to the approximation mechanism such that the alignment pin assembly can be manually actuated independently of the approximation mechanism or automatically actuated in response to actuation of the approximation mechanism.

6. A surgical stapling device according to Claim 5, wherein the alignment pin assembly includes an alignment pin pusher and a bell crank, the bell crank being releasably coupled to the alignment pin pusher and operably connected to the approximation mechanism.

7. A surgical stapling device according to Claim 6, wherein the bell crank is pivotably mounted within the body and includes a post dimensioned to be received within a C-clip formed on the alignment pin pusher, the post being removable from the C-clip to facilitate manual actuation of the alignment pin assembly.

8. A surgical stapling device according to Claim 7, wherein the approximation mechanism includes at least one clamp slide having a first end configured to support the cartridge assembly and a second end operably connected to the pivotable trigger such that actuation of the trigger causes movement of the at least one clamp slide to move the cartridge and anvil assemblies between the spaced and approximated positions.

9. A surgical stapling device according to Claim 8, wherein the at least one clamp slide includes a cam slot and the bell crank includes at least one cam member dimensioned to be received within the cam slot, the cam slot being configured to pivot the bell crank upon movement of the at least one clamp slide.

10. A surgical stapling device according to Claim 9, wherein the alignment pin pusher includes at least one post dimensioned to extend through a slot formed in the body, the post being slidable within the slot to manually actuate the alignment pin assembly.

11. A surgical stapling device according to Claim 10, wherein the at least one post includes first and second posts, the first post extending through a slot formed in one side of the body and the second post extending through a slot formed in the opposite side of the body.

12. A surgical stapling device according to Claim 11, further including a thumb button secured to each of the first and second posts.

13. A surgical stapling device according to Claim 5, wherein the approximation mechanism includes a clamp side assembly and a bi-linkage assembly, the bi-linkage assembly including a front link and a rear link, the rear link having one end pivotably secured to the body and a forward end pivotably secured to the rear end of the front link, the clamp slide assembly having a distal end configured to support the cartridge assembly and a proximal end pivotably secured to the forward end of the front link, the bi-linkage assembly being movable from a

position in which longitudinal axes of the front and rear links are misaligned to a position in which the longitudinal axes of the front and rear links are substantially aligned to move the clamp slide assembly from a retracted position to an advanced position.

14. A surgical stapling device according to Claim 13, wherein the trigger includes an extension positioned adjacent the bi-linkage assembly, the extension being movable to urge the bi-linkage assembly from the misaligned to the aligned position.

15. A surgical stapling device according to Claim 14, further including a firing mechanism, the firing mechanism including a thrust bar having a distal end positioned within the cartridge assembly and a proximal end operably associated with the trigger.

16. A surgical stapling device according to Claim 15, further including a firing link pivotably coupled to the trigger, the thrust bar having a notch formed at its proximal end, the firing link being movable into the thrust bar notch after the anvil and cartridge assemblies have been moved to the approximated position to effect ejection of staples from the cartridge assembly upon movement of the trigger through a firing stroke.

17. A surgical stapling device according to Claim 5, wherein the trigger includes a cushioned gripping member.

18. A surgical stapling device according to Claim 5 wherein the stationary handle portion includes a cushioned gripping member.